

Stock

Work Order ID 137487

137487

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Item ID: D2435 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Bearpaw
 Start Date: 10/2/2015 Start Qty: 6.00 *6* Cust Item ID:
 Required Date: 10/30/2015 Req'd Qty: 6.00 *6* Customer:
 Reference:

Approvals: Process Plan: SW 120151002 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2435	Rev E1								
120	FLOW WATER JET	0.00							
120									
Waterjet	Memo	0.02							
FLOW CNC Waterjet	CUT BLANK AS PER FILE D2435								
130	HAAS CNC VERTICAL MACHINING #1	0.01							
130									
HAAS 1	Memo	0.05							
HAAS CNC vertical machine #1	1-Inspect material for defects or damage prior to machining 2-Machine as per Folio FA789 and Dwg D2435 Identify as D2435 3-Deburr								
140	QC2- Inspect parts off machine FAI/FAIB	0.00							
140									
QC	Memo	0.00							
Quality Control									

⑥ _____ 12/15/10/20

6 _____ 15/10/28

6 _____ 15/10/28

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC8- Inspect parts - second check	0.00							DAS 44 9-89
150						6	0		15/10/29
QC	Memo	0.00							
Quality Control									
151	Identify as per dwg & Stock Location: <u>Sub 446A</u>	0.00							DAS 6 9-89
151						6			OCT 30 2014
Packaging	Memo	0.00							
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
190									OCT 30 2015
QC	Memo	0.01							
Quality Control									

MUS OCT 30 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Picklist Print

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Page 1

Work Order ID: 137487

137487

Parent Item: D2435

D2435

Parent Item Name: Bearpaw

Start Date: 10/2/2015

Required Date: 10/30/2015

Start Qty: 6.00

Required Qty: 6.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			120	sf	484.0000	3.2	19.2			

MUHMWB10

UHMW 1" Black - 48"x120" Tivar Mfg.#52480104

DC 15/15/20

Location

Loc Qty

Loc Code

MAT

84

m132063

84

MAT018

400

m133248

400

19

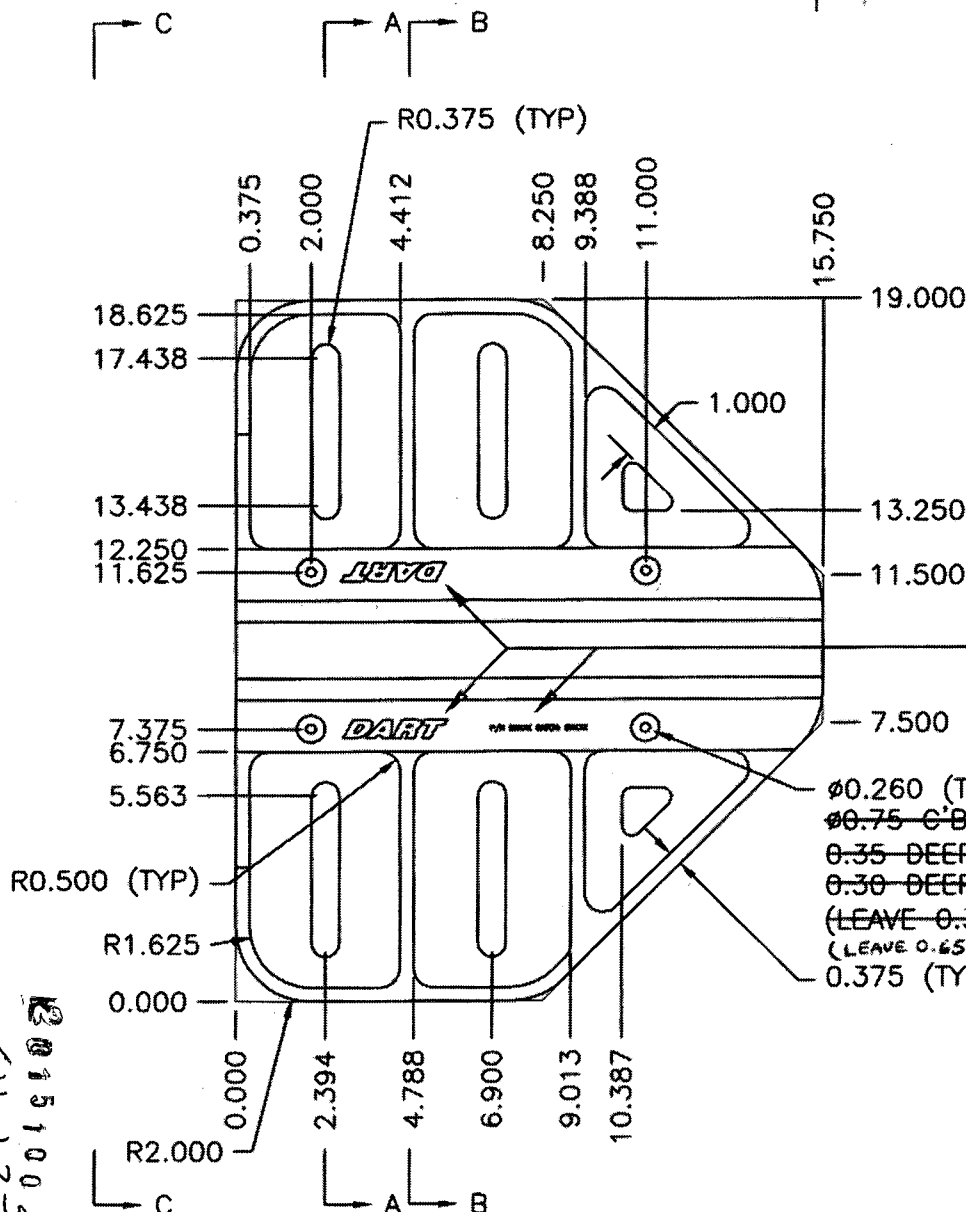


RELEASED
98.06.17 KE

DESIGN	DRAWN BY	DART AEROSPACE LTD	REV. E
KE	KE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	SHEET 1 OF 2
DATE	DATE	TITLE	SCALE
98.05.19	98.05.19	BEARPAW	1:5
A	96.01.24	NEW ISSUE	
B	96.03.26	CHANGE BORE AND C'BORE DEPTH	
C	97.05.07	CHANNEL & C'BORE DEPTH CHANGED	
D	97.10.17	R1.5 BORE WAS R2.637 (TSR A469)	
E	98.05.19	CHANGE C'BORE, R1.58 WAS R1.50	

ENGRAVE LOGO TO MAX DEPTH OF 0.012. ENGRAVE PART AND BATCH NUMBERS TO MAX DEPTH OF 0.010. (TYPICAL LOCATION AS ILLUSTRATED)

E1 02.12.17 $\phi 0.93$ WAS $\phi 0.75$ REA



$\phi 0.260$ (TYP) $\phi 0.93$ C'BORE
 ~~$\phi 0.75$ C'BORE~~ 0.30 DEEP FROM BOTTOM
0.35 DEEP FROM TOP (MIN.)
0.30 DEEP FROM BOTTOM
(LEAVE 0.300 MIN.)
(LEAVE 0.650 MIN.)
0.375 (TYP)

EFFECTIVE DEOS
9143

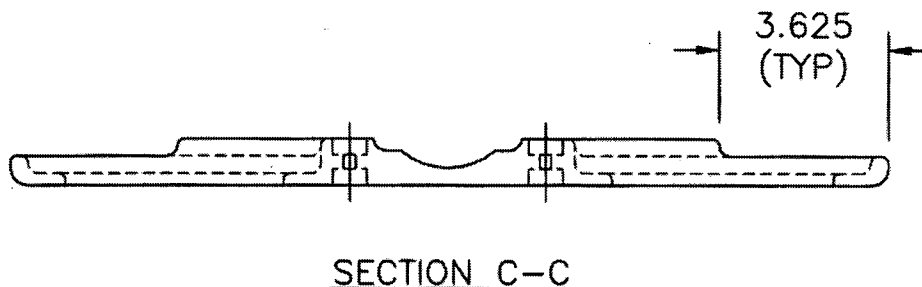
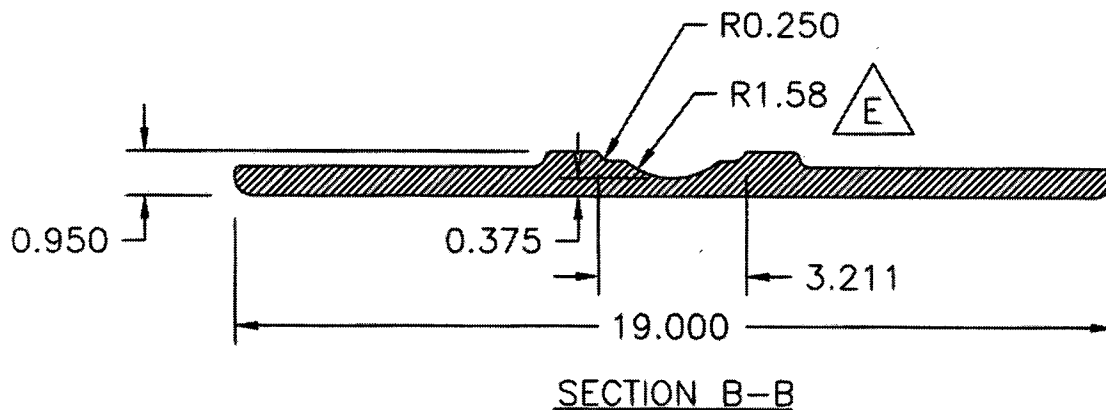
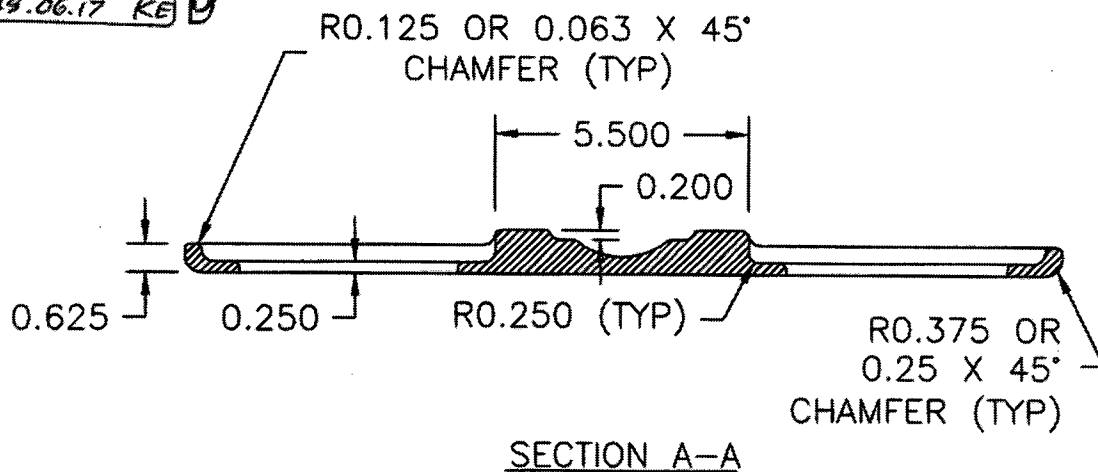
MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689
1.00 THICK (MACHINE TO 0.950)

20151002
SN 137487



DESIGN <i>KE</i>	DRAWN BY <i>KE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>DW</i>	APPROVED <i>JS</i>	DRAWING NO. D2435	REV. E SHEET 2 OF 2
DATE 98.05.19	TITLE BEARPAW		SCALE 1:4

RELEASED
99.06.17 KE



DART AEROSPACE LTD		Work Order:	137487
Description: Bearpaw		Part Number:	D2435
Inspection Dwg: D2435 Rev: E1		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	0.063 x 45°	+0.030/-0.010	0,053	✓		MIP-04	vern
B	5.500	+/-0.030	5,500	✓		...	...
C	0.200	+/-0.030	0,190	✓		MIP-08	Dial depth Mic
D	R0.250	+/-0.030	0,250	✓		—	Radius gauge
E	0.250	+/-0.010	0,255	✓		MIP-04	vern
F	0.625	+/-0.030	0,635	✓		↓	↓
G	0.25 x 45°	+/-0.030	0,250	✓		↓	↓
H	0.375	+/-0.010	0,380	✓		↓	↓
I	19.000	+/-0.030	19,000	✓		MIP-07	Tape
J	0.950	+0.030/-0.010	0,960	✓		MIP-04	vern
K	Ø0.260	+0.005/-0.000	0,260	✓		...	...
L	Ø0.930	+/-0.030	0,930	✓		↓	↓
M	0.30	+0.030/-0.000	0,305	✓		↓	↓
N	0.375	+/-0.030	0,380	✓		↓	↓
O	7.375	+/-0.030	7,375	✓		CNC-02	vern
P	4.250	+/-0.010	4,250	✓		MIP-04	vern
Q	2.000	+/-0.030	1,997	✓		...	...
R	9.000	+/-0.010	9,000	✓		...	...
S	15.750	+/-0.030	15,750	✓		MIP-07	Tape

DAS
44
9-89

Measured by:	<i>[Signature]</i>	Audited by:	<i>[Signature]</i>	Prototype Approval:	N/A
Date:	15/10/28	Date:	15/10/29	Date:	

Rev	Date	Change	Revised by	Approved
A	03.09.22	New Issue P/O K10007	KJ/RF <i>[Signature]</i>	<i>[Signature]</i>